REMARKS

Applicants have amended the claims to more particularly define the invention taking into consideration the outstanding Official Action. Applicants have amended claim 10 and have added new claim 52 to the present application (see original claim 10 for support). Applicants submit that the claims now present in the application are fully supported by the specification as originally filed and no new matter is introduced.

More particularly, in the present invention, the frying vessel in which frying oil is contained satisfies the following relationship in terms of the area SB of the opening and the depth HB of the vessel: $HB / SB^{1/2} = 1.1$ to 3.0. (In the original claim 10, this value is 0.8 to 4.0.) Further, it is important that the layer of the frying oil contained in the frying vessel satisfies the relationship in terms of the area SA of the oil surface and the depth HA of the oil layer from its bottom to the surface: $HA / SA^{1/2} = 0.6$ to 3.5. (See the present specification, page 15, line 5 to page 16, line 7). It is further important that the frying zone is defined in the frying oil so as to have a sufficient depth that materials to be cooked can be actually fried. (See the present specification, page 18, lines 1 to 8).

Based on the above, Applicants have amended claim 10 to includesuch a limitation in that the frying vessel can form an oil layer which satisfies the relationship: $HA / SA^{1/2} = 0.6$ to 3.5, and further a frying zone which covers at least 80% of the distance between the surface and bottom of the frying oil layer is provided in this oil layer. New claim 52 is equally supported by the specification as originally filed as would be appreciated by one of ordinary skill in the art to which the invention pertains.

Applicants most respectfully submit that all of the claims now present in the application are in full compliance with 35 USC 112 and clearly patentable over the references of record.

The rejection of claims 10-15, 34 and 35 under 35 U.S.C. 103(a) as being unpatentable over either one of Oiwa, Moore, et al., Koopman, or Cahlander, et al. has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

Oiwa discloses a fryer 1 equipped with an oil tank 2 including a circular bottom inner tank 3 and a bottom outer tank 5. The oil tank 2 has a rectangular parallelepiped shape. The circular bottom inner tank 3 forms a central bottom portion of the tank 2, and the outer tank 5 surrounds an outer circumference of the inner tank 3 and has a rectangular parallelepiped shape (see column 2, lines 26-41).

Further, a deflector 30 is horizontally arranged at a predetermined interval to the inner wall of the oil tank 2 at a predetermined position in the oil tank 2. A through hole 31 for accelerating convection of the frying oil P is perforated at a predetermined position at the deflector 30 (see column 3, lines 12-18). The frying oil P heated in the inner tank 3 is fed upwardly via the through hole 31 of the deflector 30 to the vicinity of the oil surface level to flow toward the sidewall of the oil tank 2. A material of food with a coating is thrown in the oil in the upper portion in the oil tank, and fried (see column 3, lines 46-51). That is, the frying zone defined in the present invention (see page 18, lines 1-4 of the present specification) is equivalent to a region above the deflector 30 in the outer tank 5 in Oiwa. The frying zone of Oiwa is significantly wide in the lateral direction as compared to the vertical direction (see Fig. 1). In Oiwa, materials of food are fried in the oil in the upper portion in the oil tank as mentioned above, and therefore the elongation of the frying zone in the vertical direction is not considered for the following reason. That is, even if the frying zone is elongated in the vertical direction, that portion of the oil layer which can be actually utilized for frying is only the region near the surface, and therefore the other portion of the oil layer is really unnecessary and wasted.

Amended claim 10 recites the following:

" A fry cooking device, comprising one or more frying oil vessels, the frying vessel having substantially parallelepiped shape with four sidewalls and a single bottom wall and satisfying a relationship of $HB/SB^{1/2}$ = 1.1 to 3.0, where SB denotes an area of an open portion of the vessel, and HB denotes the depth of the vessel, wherein the frying vessel may form therein a flying oil layer meeting a relationship of $HA/SA^{1/2}$ = 0.63 to 3.5 where SA denotes a surface area of the frying oil layer, and HA denotes the height from the bottom to the surface of the frying oil layer, and wherein a frying zone is

provided within which frying ingredient is actually subjected to fry cooking, the frying zone covering at least 80% of the distance between the surface and the bottom of the frying oil layer."

In amended claim 10, although not explicitly mentioned, it is only natural that the bottom of the frying vessel coincides with the bottom of the frying oil layer.

The technical concept of the present invention, that is, the frying vessel has substantially a parallelepiped shape with four sidewalls and a single bottom wall, satisfying a relationship of $HR/SB^{1/2}$ = 1.1 to 3.0, the frying vessel can form an oil layer which satisfies the relationship: $HA / SA^{1/2}$ = 0.6 to 3.5, and further a frying zone which covers at least 80% of the distance between the surface and bottom of the frying oil layer is provided in this oil layer, is not disclosed or even suggested in any of the cited references.

The advantages of the present invention as compared to the prior art technique is demonstrated in Examples provided in the present specification. The prior art technique here indicates the fryer having a frying vessel which satisfies the relationship: $HB / \sqrt{SB} < 0.8$, which is specifically shown in FIG. 5 of the present invention.

Example 1 provided in the present specification, page 78, line 24 to page 61, line 2 indicates with reference to FIGS. 13 to 16 that the fry cooking device of the present invention can significantly suppress the deterioration of frying oil as compared to the case where a conventional fry cooker is used.

Example 2 provided in the present specification, page 81, line 3 to page 86, line 14 indicates with reference to FIGS. 17 to 20 that the fry cooking device of the present invention can significantly suppress the deterioration of frying oil as compared to the case where another conventional fryer is used. This example indicates with reference to TABLES 2 to 7 that fried materials have better appearances, the peeling-off area of the bread powder coating is significantly small, remarkably excellent result were obtained in the organoleptic evaluation, the amount of oil absorbed by the bread powder coating is significantly small, the amount of oil in the coating is significantly small, the amount of oil consumed in cooking is significantly small, and the amount of

the frying refuse is small. Further, the advantages of the present invention with respect to the prior art technique are demonstrated in Examples 3 to 17.

As described above, the technical concept of the present invention, that is, the frying vessel has substantially a parallelepiped shape with four sidewalls and a single bottom wall, satisfying a relationship of $HB/SB^{1/2}$ = 1.1 to 3.0, the frying vessel can form an oil layer which satisfies the relationship: $HA / SA^{1/2}$ = 0.6 to 3.5, and further a frying zone which covers at least 80% of the distance between the surface and bottom of the frying oil layer is provided in this oil layer, is not disclosed or even suggested in any of the cited references. Further, the above-described advantages of the present invention are clearly demonstrated in the present specification. Therefore, Applicants strongly believe that the present invention is not obvious from any of the cited references. Accordingly, it is most respectfully requested that this rejection be withdrawn.

In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all the claims now present in the application are most respectfully requested.

Respectfully submitted,
BACON & THOMAS, PLLC

By: Richard E. Fichter
Richard E. Fichter
Registration No. 26,382

625 Slaters Lane, Fourth Floor
Alexandria, Virginia 22314
Phone: (703) 683-0500
Facsimile: (703) 683-1080
REF/cjw
A03.wpd
April 28, 2008